

**Listing of Claims**

This listing of claims replaces all prior versions, and listings, of claims in the application:

Claims 1.-8. (Canceled)

9. (Previously Presented) A system comprising:

a processor; and

a radiation detector adapted to communicate with the processor, the radiation detector dimensioned to fit on a wafer stage of a lithography tool, the radiation detector comprising

a detector element to detect an amount of radiation incident on the detector element, and

a memory to store data describing the amount of radiation detected.

10. (Previously Presented) The system of Claim 9, wherein:

the processor is adapted to compare the amount of radiation detected to a reference; and

the processor further comprises an output to output a signal for calibrating the lithography tool.

11. (Previously Presented) The system of Claim 9, wherein the radiation detector further comprises a wireless data transmitter to wirelessly transmit the data to the processor.

12. (Previously Presented) An apparatus comprising:  
a wafer sized to fit on a wafer stage of a lithography tool, the wafer comprising:

a radiation detector to produce a signal describing an amount of radiation incident on the radiation detector;

a processor electrically coupled to the radiation detector, the processor to process the signal from the radiation detector; and

a memory electrically coupled to the processor, the memory to store data received from the processor, the data resulting from the processing of the signal describing the amount of radiation incident on the detector.

13. (Previously Presented) The apparatus of Claim 12, wherein the wafer further comprises an output connector adapted to output data from the memory.

14. (Previously Presented) The apparatus of Claim 12, wherein the wafer further comprises a wireless transmitter coupled to the memory to wirelessly output the data from the memory.

Claims 15.-29. (Canceled)

30. (Previously Presented) The system of Claim 9, wherein the radiation detector comprises a wafer-shaped radiation detector.

31. (Currently Amended) The system of Claim 9, further comprising an extreme ultraviolet lithography tool, wherein [[the]] the radiation detector is dimensioned to fit on the wafer stage of the extreme ultraviolet lithography tool.